Climate Diplomacy

REPORT

URBANIZATION AND CLIMATE DIPLOMACY

The Stake of Cities in Global Climate Governance

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Climate Diplomacy

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Authors

Kaj Fischer
Eleni Dellas
Franziska Schreiber
Michele Acuto *
Daniel London **
Dennis Tänzler
Alexander Carius
* University College London ** New York University

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Kaj Fischer, Eleni Dellas, Franziska Schreiber, Michele Acuto *
Daniel London **, Dennis Tänzler, Alexander Carius

* University College London ** New York University

URBANIZATION AND CLIMATE DIPLOMACY

The Stake of Cities in Global Climate Governance

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INTRODUCTION – THE NEED TO ACT

Despite much pessimism among observers, nation states agreed on bold action for disaster and risk reduction in the Sendai Framework, and also agreed on seventeen ambitious Sustainable Development Goals (SDGs). They are also likely to reach an agreement on the successor to the Kyoto Protocol at Conference of the Parties (COP21) in Paris, which will decide the future of international climate governance. As with the negotiations on the Sendai Framework and the SDGs, non-state actors have demanded a voice in COP21 negotiations, particularly cities.

It is cities where the most ambitious climate action can be observed – but also the most harrowing failures. This indicates that cities, their needs and potential need to be better considered during climate negotiations. An increasing level of collaboration among cities (e.g. in networks) makes it more feasible than ever for national governments to engage with cities as a coherent group of actors, as does the evolution since the failed Copenhagen Climate Change Conference of 2009 of climate governance from a top-down process to a more bottom-up process.

But while the need for cities' stronger involvement in international climate governance is evident, what role they should play remains unclear. This paper will examine the role of cities and city networks in the current international climate policy architecture, especially with respect to developments in the run-up to COP21, such as the evolution of intended nationally determined contributions (INDCs) and climate finance, as well as the role that cities should play based on their potential to drive climate policies from the bottom up.

First it examines the historical and current role of cities in climate diplomacy. Second, it discusses cities' motivation for engaging in climate diplomacy, including a closer examination of regional commonalities and differences. Third, it analyses emerging actors in climate diplomacy, including city networks. It concludes with suggestions on steps that can be taken to better integrate cities in future climate governance.

I. WHY CITIES MATTER IN CLIMATE DIPLOMACY

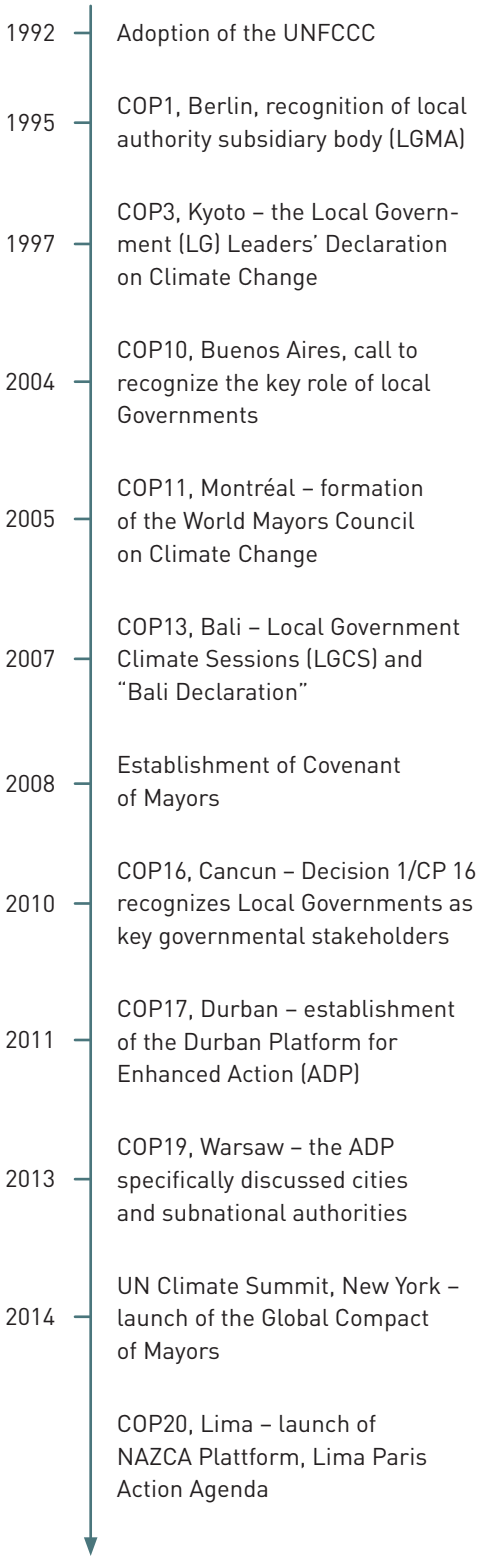
1. THE EMERGENCE OF SUB-NATIONAL ACTORS IN THE UNFCCC

Cities are increasingly asserting themselves at the global level, as evidenced by their growing prominence in international negotiation processes, particularly the United Nations Framework Convention on Climate Change (UNFCCC).

Cities had no formal authority to negotiate UNFCCC commitments upon its formation in 1992 and were merely encouraged to adopt the emission reduction targets decided by national governments. Major city networks such as Local Governments for Sustainability (ICLEI) acted on this suggestion, adopting the convention's targets in 1995. That same year the Local Governments and Municipal Authorities (LGMA) Constituency was created at the first Conference of the Parties (COP), granting cities special rights within the UNFCCC, such as access to the plenary floor and bilateral meetings with officials. The LGMA currently has 19 active members, including ICLEI, the United Cities and Local Governments, and C40.

Thousands of local government organizations joined subsequent COPs, requesting additions to the framework that would facilitate urban sustainability efforts. Particularly noteworthy developments at recent COPs were the formation of the World Mayors Council on Climate Change at COP11 (2005) and the launch of the Local Government Climate Roadmap at COP13 (2007).

During COP16 (2010) in Cancun, Mexico, member states recognized local governments as key stakeholders in the global climate regime for the first time in decision 1/CP 16 on the "Outcome of the work of the Ad Hoc Working Group on long-term Cooperative Action under the Convention." The decision acknowledged the need to include "subnational and local government" in the process. The inclusion of cities and other subnational actors was further expanded at COP20 (2014) in Lima with the launch of the Lima-Paris Action Agenda (LPAA) and the associated Non-State Actor Zone for Climate Action (NAZCA). The NAZCA platform is designed to register consistent commitments to the Action Agenda approach by collecting data from various sources such as the Carbonn Climate Registry.



2. HURDLES TO GREATER CITY INVOLVEMENT

Cities' potential for involvement in the UNFCCC process is consistently underestimated amid a continued focus on the role of national governments. This section explores the current and potential role of cities in the Intended Nationally Determined Contributions (INDCs) and in climate finance, with a particular focus on the Green Climate Fund (GCF). The INDCs that member states have developed prior to COP21 outline the specific contributions of a party to the future climate regime, particularly in achieving the objective set out in Article 2 of the UNFCCC ("to achieve [...] stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system"). Our analysis of the 126 INDCs published before 26 October 2015 shows that only 26 make an explicit reference to the role of cities or local governments in climate governance.For example, Colombia's INDC claims to seek greater participation of the territories and sectors at the local level and calls on them to design their own climate change strategy – not least to reconcile competing top-down and bottom-up processes of climate governance.

The National Adaptation Plan (NAP) process is also encouraged to involve the local level – hence this part of the INDCs could be based on an already existing prominent local government focus of the adaptation process. However, INDCs lack a comparable emphasis on the role of cities for the transformation towards low carbon development. This may be due to the strong focus on national governments when it comes to the preparation of INDCs, and may be considered an indication that there is still widespread underestimation when it comes to the potential contribution of cities to a global mitigation commitment.

47 of more than 700 projects approved by climate-related funds between 2010 and 2014 had an explicit objective of promoting urban climate change mitigation and adaptation activities

Analyses of the involvement of cities in climate finance suggest similar conclusions. For example, a recent analysis by the Overseas Development Institute found that only 47 of more than 700 projects approved by climate-related funds between 2010 and 2014 had an explicit objective of promoting urban climate change mitigation and adaptation activities *(Barnard 2015)*. In general, the World Bank's Clean Technology Fund, rather than the UNFCCC-related funds, has been by far the most important, accounting for three-quarters of the overall resources approved. But the main partners for most of this World Bank spending have been national governments.

A similar hurdle exists with the Green Climate Fund (GCF), a major climate finance initiative announced in 2009 at COP15 that is intended to be the key institution in developed countries' commitment to provide USD100 billion in public and private resources a year by 2020.

Despite intentions to promote devolution of responsibilities to the local level, the current institutional structure makes a stronger role for local governments almost impossible. The main criteria to become an accredited implementing entity (such as its fiduciary standards, environmental and social safeguards (ESS), and gender policy) pose serious challenges for cities, or at least make significant previous experience in handling complex projects or programmes essential.

An additional hurdle is the current proposal process. The main party responsible for submitting proposals is the so-called national designated authority (NDA), which is usually a division in a national ministry. The NDA nominates national, subnational, and regional entities for accreditation to receive funding. This risks being easily politicized because cities depend on national authorities to funnel international funding to them – for instance, a city's access may be impeded if its mayor is affiliated with a different party than the national government.

However, this structure is constantly evolving and leaves room for local governments and urban networks to get engaged, but for them to fully realize their potential, there must be some institutional and human capacity building at that level as well as the establishment of a vertical coordination process for climate policy, which is most often not in place.

3. HISTORICAL CITY LEADERSHIP ON ENVIRONMENTAL ISSUES

Cities have had to deal with a number of environmental issues still relevant today, which we will discuss here in order to better understand their current stake in the global debate.

Cities have always had an effect on the natural environment through the consumption of water, land, and natural resources (entailing a transformation of the rural landscape as well), the creation and disposal of human and industrial waste, the construction of built environments that modify natural landscapes and create microclimates, and the expansion of the urban periphery. Robust feedback loops ensured that cities did not escape the consequences. The way they have historically responded to manmade "natural" challenges might offer clues as to how such challenges can be addressed in our own time.

Degrading water purity was perhaps the first, and arguably most important, environmental challenge growing cities needed to face. Before the mid-19th century, most citizens were responsible for retrieving their own water from common ponds and rivers – sources that were becoming increasingly polluted by industry. In response, cities began to develop water systems, often privately run, to pipe in fresh supplies. Inefficiencies and inequalities in service led an increasing number of municipalities to take on the task of providing their own water supplies, particularly in the wake of deadly outbreaks of cholera and typhoid. The results were spectacular: in Chicago, for example, the implementation of new water purification technologies reduced cases of typhoid from 35 per 100,000 people in 1900 to 1.1 per 100,000 in 1920.

By the end of the decade, many cities were cleaner than they had been for almost a hundred years

Another manmade environmental challenge was smog. During the 19th century, industrial cities like Pittsburgh, London, and Manchester were suffused with the soot produced by bituminous coal, used for heating, cooking, and as boiler fuel. Efforts to regulate its use were quickly shown to be insufficient, prompting cities to pursue ordinances banning excessive discharges. These efforts were spearheaded by civil society organizations, particularly women's clubs, who argued for regulating and restricting "black smoke" industries on the grounds of health and aesthetics. They were soon joined by municipal engineers, who argued that air pollution had a dampening effect on economic efficiency and competiveness due to their potential to drive away coveted residents and white-collar office firms. By the

1940s and 1950s the availability of low-volatility anthracite coal and natural gas began to make the passage of these ordinances more feasible by offering alternative heating options. By the end of the decade, many cities were cleaner than they had been for almost a hundred years.

The waste produced by cities, both industrial and household, was another perennial problem. Slag (metal refinement waste), animal waste, chemicals, and human excrement all flowed into the waterways, streets, and soil of modernizing cities in the 19th and early 20th centuries. Responses to these developments, also spearheaded by women's groups and engineers, were initially stymied by cities' tendency to address each ill separately. It would not be until the development of city planning as a profession and the installation of rigorous citywide zoning rules that pollution and sewage would be addressed more substantively.

Only rigorous, empirical, and systematic strategies have tended to successfully address the environmental challenges

Cities have also had to cope with the consequences of distant environmental disasters such as rural famines, which prompted population influxes to cities. Urban catastrophes, such as the Lisbon Earthquake (1755) and the Johnston Flood (1889) prompted improved building ordinances and infrastructure, although there has still been no meaningful progress on the broader issues underlying such disasters: namely, the siting of cities in dangerous locations to begin with.

It is clear from this history that decisions based on economic efficiency often generate unexpected, negative consequences for the natural environment and that both cultural values and scientific knowledge affect society's perception of and capacity to address environmental issues. Only rigorous, empirical, and systematic strategies have tended to successfully address the environmental challenges described earlier.

II. UNDERSTANDING THE URBAN PERSPECTIVE

1. CITIES' POTENTIAL IN TACKLING CLIMATE CHANGE

The press and academia frequently acknowledge that cities are increasingly prominent on the international stage, often citing their role in climate action and global environmental governance as evidence. But while this rising profile is treated as novel, cities have been active on the international arena for a long time. There is a well-established legacy of city diplomacy, twinning, and networks dedicated to finding common solutions to today's most pressing urban environmental challenges. For instance, the tagline of the United Cities and Local Government (UCLG) network, one of the most influential collective players in the realm of urban policy, reads "100 years of action, 10 years of unity" – evidence that urban networks' participation in global efforts to curb climate change is about realizing their potential, not establishing their presence. UCLG alone gathers more than 1,000 cities and 155 national associations.

This growing awareness makes us optimistic that cities' importance to the environmental agenda is now recognized. In the last decade, the number of city networks and local government-centric transnational initiatives to curb climate change has burgeoned, with many of them partnering with major corporate, philanthropic and business interests. Further linking with other layers of government, the private sector, and civil society organizations, as well as city diplomacy and technical exchanges, is fundamental to continuing this upward trajectory.

BOX 01 **URBAN PLANNING - AN ESSENTIAL TOOL**

In order to better understand the motivation behind cities' engagement in climate diplomacy, it is vital to not only look at their potential influence on global processes, but also to consider the inverse perspective: what do climate change and its corresponding policies and international agreements imply for cities and urban management in general?

When reacting to these external conditions, cities have to rely on their own toolbox: urban planning. Defined broadly, it comprises elements of spatial and land use planning, building codes, policy frameworks, and management tools to deliver urban services. More simplistically, it is those activities that define urban form and function. Urban planning is affected by climate change in two main dimensions:
1) Implementation of climate change policy – irrespective of whether it was decided at the international, regional, national or local level – has to be delivered by local governments and their administrations.
2) Adaptation to climate change at the local level has to happen, regardless of any international agreements. Adaptation is necessary to protect fixed assets, the livelihoods of residents, and the economic foundation of any city. However, international support and reliable sources of funding are of major importance to successful adaptation.

Both these issues indicate that urban planners, who often work closely with city leaders, have an inherent interest in international climate diplomacy. Consequently, they should be considered key stakeholders in multilateral negotiations. While urban planning is mostly subject to national regulation, agreements such as the New Urban Agenda (which will be the outcome document of the United Nations Conference on Housing and Sustainable Urban Development in October 2016), the work of UN-Habitat, and the influence of city networks can provide an opportunity to discuss the relationship between urban planning and international climate policy debates.

It is also essential for city representatives and leaders to be able to 'speak' as international actors. Here, once again, cities are already on the right path. To return to the UCLG case, the network has been one of the major advocates of the Istanbul Water Consensus and of World Water Day (which has strong connections both to the climate agenda and the sustainable development goals). Led by Kadir Topbaş, the mayor of Istanbul and president of the network, UCLG's participation in these international efforts speaks a global language, both in numbers (pointing out that one in ten people worldwide do not have access to safe water) as much as in capacity (illustrating how cities can be the catalyst of a multi-level governance effort). As in the case of other city networks central to climate governance and finance, UCLG's emphasis on the potential and capacity of cities follows a clear pattern: it asserts that cities are at the heart of global environmental challenges, that cities can collectively address these issues, and that they can lead more-than-local efforts while national governments are stalled by the glacial pace of international negotiations.

BOX 02 OVERLAPS BETWEEN CLIMATE POLICY AND OTHER POLICY FIELDS

Cities are also affected by – and take decisive action in – other policy fields that are related to climate policy, such as security. Recent studies show that climate change poses significant threats to security. While it may not directly cause conflict, climate change can be a "threat multiplier" that worsens existing conflicts and undermines fragile cooperation in conflict regions *(Rüttinger et. al. 2015)*.

Climate change impacts, such as extreme weather events or disruptions in food production and distribution, can cause increases and changes in migration patterns. Most of these population flows are absorbed by cities, resulting in rising social tensions and severe stress on urban services such as water supply and waste management.

Moreover, climate change can exacerbate resource conflicts, which can significantly affect cities as major consumers of natural resources. Urban growth can also further increase competition over natural resources such as fresh water and land, thereby causing new conflicts.

But cities can also be "safe havens" in fragile environments. Increasing urban resilience and service delivery has the potential to relieve pressure, easing negotiations in existing conflicts. Initiatives such as Mayors for Peace illustrate that city leaders are stepping up to the challenge.

2. THE URBAN PERSPECTIVE: GLOBAL ISSUES UNFOLDING LOCALLY

What does it actually mean to take an urban perspective on global governance matters like that of tackling climate change? Several analyses have examined the role of cities in international organizations and international relations more broadly. Since the early 1960s, there have been studies examining local governments as paradiplomatic influences on negotiations between nation states. Several recent studies and much of the public discourse on the role of cities in climate change are based on the assumption that cities will be integrated into the framework of treatises such as the UNFCCC or the sustainable development goals. While not incorrect, such assessments comprise only the tip of the iceberg of urban action on environmental and climate policy.

In this discussion, we should be wary of focusing exclusively on cites' interaction with the United Nations and international negotiation processes. If we want to "see" environmental action "like a city" it is imperative to think of the city's role as a sphere of governance nested within but mostly subordinate to other realms of politics (national, regional, international, but also community and neighbourhood) and interacting with other (local) governments, the private sector, and NGOs. As Canadian political scientist Warren Magnusson puts it, to "see like a city" we have to understand the realm of climate action as a complex milieu where authority structures shift depending on the domain observed, the power relations at play and the spatial scale at stake *(Magnusson 2013).* Cities are better attuned to this complex reality of governance and are, as city networks prove, fast learning the benefits of trans-national and 'hybrid' (public-private, or quasi-governmental) arrangements.

This does not, however, mean that cities are the sole initiators of urban climate action. The view that 'city diplomacy' is merely 'city-to-city twinning' limits the potential of climate action led by and focused on cities rather than states. The possibilities for city action beyond 'city-to-city twinning' is appreciated by major international actors like the World Bank, UN-Habitat, and the European Union, as evidenced by the €7 million Urban-LEDS initiative, which is funded by the European Commission and implemented by UN-Habitat and ICLEI. The Urban-LEDS project, which works with selected local governments in Brazil, India, Indonesia and South Africa, aims to expedite the transition to low-emission urban development in emerging economies.

Such urban perspectives on global climate action illustrate the connection between global processes and the way they unfold in cities worldwide. City leaders in all of their various guises are a vehicle for local accountability of international efforts. However, cities also present us with important challenges. The democratic legitimacy and accountability of various urban initiatives is still insufficiently discussed. This relates for example to who decides on what schemes are to be implemented, and how these are embedded and integrated within existing community structures and civil society demands. It also relates to the extent of involvement of actors as diverse as large industry and small indigenous communities in such climate initiatives.

BOX 03 COMMON URBAN CONCERNS

Infrastructure
This includes road infrastructure to reduce traffic and therefore transport-related emissions and air pollution, drainage and sanitation systems capable of coping with heavy rainfalls and flooding, and electricity grids that can accommodate new approaches to energy provision, such as decentralized micro grids fuelled by renewable energy sources or district heating.

Infrastructure generally has a lifespan of approximately 20 to 50 years, so construction of climate resilient and low emission infrastructure today will continue to pay off for decades. It is estimated that around $40 trillion are required until 2030 for the refurbishment of old infrastructure and the building of new infrastructure in cities around the world. If done properly, about 50 percent of infrastructure-related GHG-emissions could be prevented while also increasing resilience to climate change-related extreme weather events *(UNEP 2013).*

Interest in infrastructure is high among large construction firms and international investors. As the effects of climate change become more obvious, insurance companies become another important player.

Housing
There is enormous potential to reduce GHG-emissions in the housing sector through energy efficiency measures like better insulation, combined power and heating or cooling, and sustainable supply chains in the construction sector. In 2009, UNEP reported that building and construction account for 40 percent of global energy use, 30 percent of energy-related greenhouse gas (GHG) emissions, about 12 percent of water use, and nearly 40 percent of waste. They also employ about 10 percent of the world's workforce *(UNEP 2009).*

Housing also needs to be located in areas safe from flooding and landslides and to be able to accommodate new approaches to energy provision, such as decentralized micro grids or district heating. All of these challenges have significant impacts on housing prices and therefore on the physical and social composition of urban development.

Mobility
According to the European Commission, urban mobility accounts for about 40 percent of all CO_2 emissions from road transport and up to 70 percent of other pollutants from transport, most of which can be attributed to urban car use *(EU Commission 2007).* As a result, many cities consider mobility and transportation infrastructure a top priority for climate change mitigation measures. At the same time, mobility infrastructure is a significant contributor to urban economic growth, thus also making road infrastructure a top priority with respect to adaptation measures.

3. REGIONAL VARIABILITY

Climate change and its impacts do not adhere to national or regional boundaries. Cities across regions often face similar challenges, making the sharing of experiences and best practices a valuable way to accelerate local climate action.

Bearing this in mind, it is not surprising that strategies for mitigating and adapting to climate change increasingly "resonate across distally connected and networked towns and cities of diverse locations" *(Simon and Leck 2014)*. Catalysed by international city networks like ICLEI, C40 or UCLG, which support and facilitate the sharing of knowledge between cities and regions, a great number of new relationships have been fostered to enhance urban resilience.

Urban risks and vulnerabilities are also highly context specific

However, urban risks and vulnerabilities are also highly context specific. Large cities in low-lying coastal areas as well as settlements located in river flood plains, for instance, will be particularly exposed to and affected by extreme events. In addition to its geographical location, the impact of climate change in any city is determined by a range of other factors, including quality of housing and buildings, infrastructure and services, early warning systems, residents' socio-economic status and adaptive capacity, and regulatory frameworks *(Satterthwaite 2013)*. The capacity for adaptation and mitigation is also affected by institutional, financial and personal resources that vary by region and determine priorities of future action.

The following paragraphs outline key challenges and opportunities facing cities in different regions. As the full complexity of regional contexts exceeds the scope of this paper, these descriptions are limited to broad trends. The fact that cities may differ or be comparable on many more dimensions (such as geographical conditions like coastal or mountainous regions) needs to be kept in mind. Moreover, data availability is limited for many relevant issues. The issues discussed here reflect the state of available research and data, which thus leaves some issues underrepresented.

AFRICA

African cities are particularly affected by the impacts of climate change due to high exposure to climate change, lack of awareness and adaptive capacity, and the rapidly growing number of the urban poor. According to Niang et al. (2014), key regional risks include reduced crop productivity, livelihood endangerment, loss of coral reefs, vector- and water-borne diseases, and migration. Climate variability and changes in precipitation coupled with strong urbanization trends will increase already existing stress on water availability and food security in African cities.

National and local governments have started taking action to address climate change impacts, such as mainstreaming adaptation into sectoral planning and establishing systems for adaptation. Effective adaptation is however often constrained by fragmented institutional frameworks and a lack of capacity, particularly at the local level, leading to uncoordinated initiatives. Funding and technology transfer, capacity-building, and stronger linkages between projects will be needed to overcome the current deficit in adaptive capacity and enable resilient urban development.

NORTH AMERICA

Severe heat, heavy precipitation and declining snowpack are among the most-observed climate trends in North America, leading to increased stress on water resources, agriculture, human health, infrastructure, ecosystems, and the economy *(Romero-Lankao et al. 2011).*

Many American cities already have climate change adaptation and mitigation plans. Moreover, numerous local, regional and state initiatives as well as North American projects by associations such as ICLEI and C40 have substantially enhanced efforts in climate action planning and GHG reduction by supporting the dissemination and exchange of key practices, tools and research, and connecting local governments with other levels of government.

While adaptation has long been ignored by American cities, the issue is now gaining increased recognition among urban planners and local governments. Examples of adaptation practices applied by North American cities include infrastructure service adaptation, storm water management, urban tree planting, and incorporating climate change adaptation and mitigation into land use planning and policies, while mitigation strategies focus on GHG emission reduction, energy efficiency and conservation, renewable energy, and energy use in transportation *(Zimmerman and Faris 2011).*

Despite recent progress, North American coastal cities continue to be vulnerable to the impacts of climate change, and the planning and implementation process is often still hampered by fiscal constraints, lack of information, institutional capacity, and political will *(Romero-Lankao et al. 2011).* Vertically integrated plans linking different levels of government, and focusing on the interrelation between adaptation and mitigation would allow for better coordinated approaches and cost-effective planning.

LATIN AMERICA AND THE CARIBBEAN

Cities in Latin America and the Caribbean (LAC) are not yet major GHG emitters. However, this will change soon due to recent motorization trends, increasing urban sprawl and the growth of smaller urban areas. Although socioeconomic conditions in the region have improved in recent years, levels of poverty and informality remain high, with almost 50 percent of the urban population employed in informal sectors and lacking the capacity to adapt to the impacts of climate change. In addition to regionally prevalent risks, such as environmental degradation, biodiversity and ecosystem loss, and changes in agricultural productivity, LAC cities (e.g. Quito, Ecuador; Huancayo, Peru) are particularly challenged by water supply shortages and increasing vulnerabilities to climate-related diseases *(Magrin et al. 2014)*.

In response to such increasing risks, several national, sub-national and local governments in LAC have launched climate change initiatives and implemented adaptation and mitigation measures. However, like elsewhere, mitigation has clearly been prioritized over adaptation, which explains the existing deficit in adaptive capacities *(Hardoy and Romero Lankao 2011)*. Policy making at the local level is often constrained by a fragmented governance architecture, a lack of institutional capacity and financial resources, scarce knowledge and limited data availability. Applying a holistic, pro-poor perspective by intertwining mitigation and adaptation responses with development will enhance adaptive capacities, and allow for multiple challenges to be addressed in an efficient manner *(Magrin et al. 2014)*. But more support from higher levels of government will be needed to move quickly from the planning to the implementation phase.

ASIA AND THE PACIFIC

Asia and the Pacific are highly prone to natural disasters. From 2000 to 2008, Asia faced the highest number of weather and climate-related disasters worldwide. This high vulnerability to climate change arises not only from physical hazards, but also from an unprecedented scale of urban growth. Asia's urban population is increasing by 140,000 people per day and is projected to account for more than 50 percent of the world's population by 2050 *(Hijioka et al. 2014, Fuchs 2010)*. Much of this rapid population growth is occurring in coastal cities, particularly in flood-prone, low-lying coastal zones that are at high risk from sea level rise and land subsidence, and are already home to a highly vulnerable population. Indeed, according to the IPCC Fifth Assessment report, the majority of the "top 20" cities (e.g. Mumbai, Guangzhou, and Bangkok) for projected population and asset exposure to coastal flooding are located in Asia *(Hijioka et al. 2014: 1346)*. Moreover, cities with less than a million inhabitants will face the highest population growth, but they are often institutionally weak and unable to promote effective mitigation and adaptation actions. This highlights the urgency to act at the local level in the field of climate change mitigation and adaption in this region.

However, risks and vulnerabilities often go unaddressed because of a lack of access to relevant scientific information and limited data availability, lack of understanding of other urgent problems such as housing and poverty, budgetary constraints, and governance issues *(Fuchs 2010)*. There is a great need for regulating land use through zoning, building codes and ordinances to reduce exposure to flooding risk and guide future growth, as well as for developing comprehensive risk-reduction strategies, building institutional capacity, and mobilizing necessary resources (ibid). Across Asia, significant investments are currently being made by donor organizations to catalyse awareness of climate change impacts in dynamic urban environments and to help cities access funding by matching them with potential funding institutions (e.g. the Cities Development Initiative for Asia (CDIA)).

EUROPE

There is significant spatial variability in current climate trends and future climate projections (e.g. precipitation, drought, and temperature) across Europe. Extreme weather and climate related events in Europe already "have accounted for the vast majority of all natural disasters and economic losses associated with catastrophic events since 1980" *(Carter 2011: 193)*. Considering Europe's urbanization rate of 75 percent, it is up to cities and municipalities to take the lead in mitigating climate change and adapting to its impacts. Compared to regions like Asia, Africa or South America, the adaptive capacity in European cities is relatively high, although there is a substantive gap in capacity between sub-regions *(Kovats et al. 2014)*.

At present, adaptation to climate change still lags behind mitigation efforts; however, many cities are engaging in efforts to change this. Adaptation approaches range from integrated climate change strategies linking adaptation and mitigation (e.g. Madrid, Spain), to comprehensive adaptation strategies (e.g. Copenhagen, Denmark). In order to popularize adaptation policies beyond a few cities, overarching policy frameworks are needed to support local action. Such policy frameworks should moreover be integrated with other sectors, such as health. This will bring co-benefits and reduced competition for financial resources in times of austerity *(Carter 2011)*.

CONCLUSION

What can we learn from the vast amount of information on regional priorities and needs with respect to future climate action? While the exposure to and impact of climate change greatly differs between cities and across regions, at the local level the obstacles and opportunities in addressing these challenges are often quite similar: a lack of capacity, budgetary constraints, governance issues, uncoordinated project-based initiatives, and a deficit in awareness are all prevalent obstacles. And, while the speed of urbanization and population growth varies per region, most cities face the challenge of having to cope with urban growth and the impacts of climate change simultaneously.

Considering these similar obstacles, knowledge sharing and collaboration at the local level need to be emphasized. Organizations and international city associations, such as ICLEI, C40 and UCLG, but also more locally oriented networks can play a key role in facilitating the exchange of experiences and know-how between cities, as well as in calling for commitment to global initiatives, such as the UNISDR Making Cities Resilient campaign, or the Compacts of Mayors *(Kernaghan and da Silva 2014)*.

III. ENABLING ACTORS – WHO IS THIS URBAN?

Discussions about the role of 'cities' in world affairs and of the 'urban' as a critical agenda for global governance are often void of systematic analysis and clear referents. For instance, mentions of the participation of 'Sydney' in transnational environmental actions could mean the greater area of the Australian city (covering over 38 local authorities, twelve thousand square kilometres and nearly 5 million inhabitants), the New South Wales state government, or the more active City of Sydney, which represents about 2 percent of the region and is headed by a very active (perhaps even activist) international mayor like Councillor Clover Moore. The question that is often left unanswered in global climate discussions is "who is the city?"

In the following section, we unpack this question of agency by looking at three major sources of urban involvement in world affairs in general, and in global environmental governance in particular: local governments, city networks and private actors. It is in the interplay between these three groups that much of the potential for cities to play a role in climate action lies – but also the biggest challenges.

1. CITIES AND CITY REPRESENTATIVES AS INDEPENDENT ACTORS

Individual city leaders, like mayors and chief executives, are generally the most common proxy for cities in world affairs, including environmental governance. Certainly this individualized representation is the linchpin of the mayor as the authority embodying the constituency of the city and, as the commonplace mantra goes, closest to the interests of the individual urban inhabitant. Having a 'voice' for the city, being capable of interacting with other (central and regional in primis) layers of government and of representing the interest of the city at home and abroad was undoubtedly one of the core factors in the (re)establishment of a Greater London Authority. Moreover, mayors such as Ken Livingstone, a strong advocate for environmental action who originally set up the C40 Group in 2005, have also provided the British capital with a strong and unified 'voice'.

Mayors are certainly the most visible local actors in global climate action. However, they are not the only important city leaders

Mayors are certainly the most visible local actors in global climate action. However, they are not the only important city leaders. There are a variety of other elected, appointed and even hereditary leaders that engage regularly on the world stage on behalf of cities. For instance, Hong Kong is generally represented by a chief executive under the auspices of the Special Administrative Region of the People's Republic of China, but is also an often very active urban actor in the East Asian environmental advocacy landscape and within the C40 Group. The city leaders of the Arabian Gulf also have significant capacity to influence regional decisions on mitigation and adaptation actions, which are often very cutting edge. Their role is even more complex than those of chief executives or governors. The sheikhs of the United Arab Emirates and the royal families of Qatar and Saudi Arabia are today major players in urban development in their increasingly globalized cities and via overseas investments – as much as some of the well-established giants of the North, like New York or London.

Recognition of city leaders in the processes of the UNFCCC remains minor. However, in global environmental governance more broadly city advocacy has been steadily growing, with networks like the C40 Group, UCLG and ICLEI at the forefront of this campaigning. At the same time, city leaders have been building bridges well beyond the limits and processes of the UNFCCC for quite some time, demonstrating that they are capable of going to great lengths in leading adaptation and mitigation initiatives.

City leaders are empowered by their capacity to plan and implement urban development, regulation and experimental initiatives. Conscious that the "cities act, states talk" rhetoric has had only limited impact, many groupings of cities have been industrious in backing that up with data. Symptomatic of this, for example, is the recent effort by the C40 Group to demonstrate the impact of its city leaders on climate action. In collaboration with global engineering consultants ARUP, C40 has been gathering information on the planning, infrastructural, retrofitting, legal and taxation capacities of mayors to adapt their urban policy to more effective global climate goals and local environmental initiatives.

However, the label of 'urban players' in climate action cannot be limited to mayors, or even city leaders in general. Numerous NGOs, civil society groups, and business leadership organizations (BLOs) are involved in urban climate governance, but are often overshadowed by the apparent 'rise' of mayors. Before moving on to the complex issue of private actors, it is important to consider a category of players that are shaping how cities engage with their overseas peers as much as multilateral bodies and major corporate actors – city networks.

2. CITY ENGAGEMENT THROUGH NETWORKS

The international impact of cities is exemplified by the proliferation of city networks in the past decade. By some estimates, there are more than 60 city networks today that mainly focus on the environment, with climate action representing the lion's share. This variety of more-than-local connections has increased the capacity of cities to act as players on the international stage of environmental governance. For instance, as international climate negotiations came to a standstill at COP15 in Copenhagen (2009), city networks such as ICLEI, UCLG and the C40 Group were instrumental in prompting city-based collaborations on the side (quite literally just outside of the convention centre) of the UNFCCC process. This demonstrated how urban-led efforts can help avoid the gridlock faced by international negotiations. Furthermore, city networks offer a transnational playing field for cities in very different regional contexts, such as Mexico City, Seoul and Frankfurt, and link global climate policy to urban practice. Thus, the importance of city networking goes beyond joint advocacy, as it also supports concrete action.

The importance of city networking goes beyond joint advocacy

The increasing breadth and depth of city network activity in the realm of climate change is, however, still broadly undocumented. While city networks analysis is now well rooted in global environmental politics, the overlaps among different forms of city networking have yet to be systematically analysed. Thus far there is little cross-analysis of the impact that networks in different domains have on each other and on policymaking.

However, city networks for security and health policy are also very well established and engage in trans-national city diplomacy. For instance, the disarmament and international peacebuilding activities of Mayors for Peace have been in place for more than three decades, while the World Health Organization's Healthy Cities Network includes a variety of national sub-networks that have been collaborating on joint initiatives and declarations for more than 25 years. In short, the possibilities for cross-pollination and resource optimization across this plethora of well-established networking contexts are huge and of strategic relevance for any mitigation or adaptation approach to climate change.

Yet, it would be misleading to think that all of this activity is limited to forging connections and gathering representatives from cities. It is critical to consider how the implications of city networking go well beyond mayoral meetings. While city summits are now a popular facet of the annual climate action calendar and mayors are increasingly keynoting events across the whole environmental governance agenda, the most extensive impacts could come from a number of other effects of city diplomacy, many of which bear direct relevance to the influence of cities on global climate action.

First, technical cooperation between municipal officers, as much as between cities and industry, is of prime importance in shaping the actual application and innovation of carbon reduction technologies and climate adaptation schemes. Second, policy coordination and exchange among cities participating in these networks is essential to the circulation of innovative models and ideas on how to best cope with, if not mitigate, climate change. Innovation, in this sense, has important structural echoes on the governance of cities around the planet. Therefore, the capacity of cities to adapt and shift their policy implementation processes and institutions by virtue of being linked to other cities beyond their own national confines is essential.

There are also other less explored but potentially fruitful forms of city networking that could further enhance this multifaceted transnational agency. For instance, networks could offer joint training and personnel exchange, which would strengthen the collaborative and cosmopolitan nature of climate action by cities at relatively low additional costs. Similarly, the opportunities provided by the numerous institutions of higher education in cities are still widely untapped. Universities, not just in the global north but increasingly also in emerging economies and developing countries, are a phenomenal reservoir of expertise. Here city networks could have an even more pervasive impact by linking both the scientific community engaged in climate action, as well as the more technical community engaged in civil engineering, planning and architectural responses to environmental depletion, with practical application in urban public policy.

3. THE PRIVATE SECTOR: KEY MULTINATIONALS AND FOUNDATIONS

The emergence of cities as pervasive (para) diplomatic actors and proactive international networkers has been strongly influenced by the private sector. If the original "first wave" of city networks and cross-national urban initiatives was characterized by city twinning and city-to-city cooperation (as exemplified by Sister Cities International), the growing interconnection with corporate partners is possibly the single most distinctive feature of the contemporary "second generation" of networks like the Climate Leadership Group *(Bulkeley and Shroeder 2012)*.

As with the simplification of 'urban' actors to mayors, we should not reduce the private sector to an amorphous entity. Cities have long been dealing and partnering with a variety of non-governmental actors, some for-profit and some charitable. While this discussion is beyond the scope of this paper, it is necessary to highlight the main types of non-governmental actors joining forces with cities and city networks in international climate policy and negotiations. On the for-profit side is the now well-established participation of business and industry as core implementation partners of initiatives like the C40, but also as initiators of theme-specific networks beyond climate, such as the Cities Protocol on smart city development that was initiated by Cisco. An example in the climate sphere is the partnership between the electronics company Siemens and C40. The two back an annual prize scheme – the City Climate Leadership Awards – that recognizes innovative action to combat climate change in cities the world over. Likewise, major industry giants like Honeywell (which partnered with C40 in 2007) have made important efforts towards engaging cities in public-private partnerships geared towards adaptation and mitigation. Such efforts are critical in enhancing the global reach and policy-to-practice capacity of cities. As Bulkeley, Castan Broto and Edwards (2014) point out, business and industry are critical partners in deploying pilot innovations that often represent the cutting edge of urban experimentation. But they also point out that this is usually technical experimentation rather than social or governance innovation, so there are still important political and legitimacy questions for the global influence of city networks.

While often overlooked, both NGOs and philanthropic organizations play an important role in supporting cities' global diplomatic efforts. Two philanthropic organizations that have recently emerged as important supporters of urban climate action are the Clinton Foundation and Bloomberg Philanthropies. Their status as urban philanthropy giants developed in the context of their involvement with the C40, of which the Clinton Foundation was one of the first core sponsors while Michael Bloomberg, former New York City mayor and founder of Bloomberg Philanthropies, was a C40 Chair. Wealthy donors like Realdania or the Children's Fund also play an important part in the work of C40.

Moreover, philanthropies have recently also launched initiatives for city networking and capacity building, as with the Rockefeller Foundation and its 100 Resilient Cities initiative. These investments lend further legitimacy to the international diplomatic role of cities, and also testify to the belief of the market and the major neoliberal forces that cities are not a transient fad but a long-term investment worth making.

Less embedded (and perhaps worryingly so) in urban climate diplomacy are the many NGOs campaigning for social equity, environmentalism, and North-South rebalancing agendas. One example is the collaboration between the ICLEI Local Governments for Sustainability network and international NGOs like the Global Planners Network, or the broader collaboration between the Cities Alliance and both Habitat for Humanity and Slum/Shack Dwellers International, with a clear Global South rebalancing focus.

The private sector has been key in the growth of city diplomacy and in the extension of city-to-city cooperation

While philanthropies and NGOs are thus increasingly involved in city networks, it is the private sector that has the strongest impact on the direction and effectiveness of city networking. Moreover, the private sector has been key in the growth of city diplomacy and in the extension of city-to-city cooperation beyond twinning into the realm of experimentation with climate mitigation and adaptation strategies.

The engagement of these diverse actors at a transnational and international scale complicates efforts to assess the patterns of city action in environmental politics, but the increasing commitment of large multinational companies, philanthropies, NGOs and other actors is undeniable evidence that cities are seen as key players in the direction of global climate action and of the fact that, after all, no truly global action is possible without cities.

IV. RECOMMENDATIONS – HOW TO ADDRESS AND INTEGRATE CITIES IN CLIMATE DIPLOMACY

From the discussions in this paper, we derive a set of practical recommendations for better integration of cities and urban issues in the future climate regime. Urbanization as a process and cities as its primary actors have global implications that reach far beyond climate issues. How governance systems and policy fields can respond to such a phenomenon is yet to be adequately discussed. Events like COP21 and the upcoming Habitat III conference and its outcome document (the New Urban Agenda) can provide useful opportunities to define a more comprehensive vision for the future of urbanization.

Based on our analysis of the historic and current role of cities, their motivation to engage in global climate diplomacy, and the wide range of emerging urban actors, we conclude that the role of cities, and especially the role of city networks, can be enhanced by the following principles and measures:

DECISIONS ABOUT THE ROLE OF CITIES VIS-A-VIS STATES AND INTERNATIONAL ORGANIZATIONS MUST BE GROUNDED UPON THE REALITY OF INTERDEPENDENCE

There is no clear line separating a local from a national or international issue – whether it be climate change, migration, or economic development. If solutions to such issues are incorrectly framed in zero-sum terms, whereby an enhancement of local power or resources is a diminishment of national prerogatives and capacities, this stifles the chance for practical, sustained achievement. There is no "urban" or "national" problem: there are simply problems. However, interdependent actions can only be taken if the ways in which the actions of cities are fundamentally – and often, negatively – delimited by national and international governance frameworks and prerogatives are recognized. Enhanced coordination and collaboration of all levels of government is a prerequisite for cities and city networks to effectively contribute to climate action.

THERE MUST BE TERMS OF ENGAGEMENT FOR CITY NETWORKS AND THE INTERNATIONAL COMMUNITY

In order to engage with cities and city networks more effectively, a debate on terms of engagement with these new actors is required. While city networks have established their own working principles in the absence of existing frameworks, it is vital to create a setting that allows all stakeholders to interact on equal footing. Decision makers at all levels moreover need a better understanding of the nature and agendas of the plethora of city networks. A discussion on the conditions for effective engagement with city networks should therefore at a minimum address their internal governance, the number and global distribution of member cities, and the type of activities networks can contribute in the international process. This discussion should involve all levels of decision making – from local to global. COP21 and the UNFCCC will provide a good opportunity to initiate this debate at the global level. Guidance can be drawn from the admission criteria for stakeholder groups at COPs, or the more recent experiences with the Lima-Paris Action Agenda, which already specifically addresses cities and regions through the NAZCA Platform.

IMPROVE COORDINATION AMONG CITY NETWORKS

City networks, too, could benefit from a clear delineation of their roles. The increasing regional and thematic diversification of such initiatives provides much needed flexibility, but the proliferation of actors, initiatives and approaches may also lead to a duplication of efforts and uncoordinated action. Multiple city networks and associations offer approaches and tools for assessing urban vulnerability, making it difficult for cities to choose the tool that is most appropriate to their context. A good example of an initiative that addresses such issues and supports improved coordination is the Medellin Collaboration on Urban Resilience, an alliance between UN-Habitat, UNISDR, the World Bank Group, IDB, GFDRR, the Rockefeller Foundation, 100 Resilient Cities, C40 and ICLEI. The Medellin Collaboration fosters harmonization of approaches and tools, catalyses access to finance, and supports capacity building in cities. While it is a relatively new initiative, it may nonetheless provide useful insights for future collaborations. The Compact of Mayors is another good example of an initiative that fosters coordination amongst city leaders and city networks. The Compact aims to enhance public recognition of the impact of city's actions by, for instance, ensuring standardized measurement of emissions and climate risks, and consistent reporting of cities' efforts and actions to the Carbonn Climate Registry (cCR).

DEFINE THE ROLE OF CITY NETWORKS IN FOSTERING COOPERATIVE RELATIONSHIPS BETWEEN THE PRIVATE SECTOR AND CITIES

Private industry emissions are major contributors to climate change. National policies need to both regulate emissions at the national level and strengthen cities´ ability to deal with industry directly. At the same time, the private sector is often an important ally of cities with respect to climate action, as exemplified by business involvement in C40, ICLEI and other city networks. Such positive collaboration on climate issues between cities and the private sector needs to be encouraged, however efforts must also be taken to ensure that private sector engagement in city networks is transparent and accountable. Moreover, city networks can help individual cities deal appropriately with the private sector and avoid exploitation, e.g. through one-sided long-term infrastructure concessions. If designed to be fair and mutually beneficial, cooperative relationships with the private sector can greatly increase the capacity of cities to pursue the kind of aggressive action that is needed to tackle the challenges of climate change.

GIVE URBAN ISSUES STRONGER CONSIDERATION IN NATIONAL CLIMATE POLICY

Our analysis of INDCs and the GCF mechanism revealed that the increasing importance of cities is not reflected appropriately in current climate governance processes. Addressing such issues can not only help cities take climate action, but also increase the overall ambition of global climate action. An improved integration of cities into the INDC process would be one step. While a number of INDCs include references to specific urban approaches, only a few explicitly mention a mandate for cities and other sub-national actors. The future review of INDCs should call for enhanced vertical integration in national climate policy specifically addressing cities.

City networks can act as a facilitator. They are able to mobilize their members and additional cities in signing up to global initiatives that can play an important role in making nation states aware of cities' ambitious actions and their pivotal role in achieving internationally and nationally agreed climate targets, such as UNISDR's Making Resilient Cities campaign, the Durban Adaptation Charter or the Covenant of Mayors. They can also proactively engage in developing and communicating guidelines on how vertical integration in national climate policy can benefit and inform the further INDC process, and they can provide substantial knowledge and capacity to integrate urban issues in national climate policy. Additionally, city networks are at the forefront of implementing both mitigation and adaptation projects, often across borders.

USE THE PRE-2020 PERIOD TO TEST ENHANCED MODES OF ENGAGEMENT

As the Paris agreement will only enter into force in 2020, the next five years provide a window of opportunity to explore new ways of collaborating with cities. More attention needs to be paid to the role of cities in climate finance, especially with respect to the GCF.

While most networks are unlikely to qualify for accreditation, their close affiliation with many already accredited entities (e.g. C40 and the World Bank, CDIA and ADB) positions them well for an advisory role. In particular, networks can help to coordinate horizontal collaboration. For example, the City Development Initiative for Asia (CDIA) not only fosters regional dialogue and knowledge exchange, it also facilitates the pooling of infrastructure projects to reach required investment thresholds. However, such a consultative role needs to follow clear standards of transparency and accountability to avoid conflicts of interests and ensure the legitimacy of networks.

However, there is the risk that such consultative activities predominantly benefit global cities with the staff and resources for active involvement in city networks, while smaller and medium-sized cities are side-lined, therefore it is necessary to closely assess their impact and conduct. The results of such an assessment should then be integrated in clearly defined terms of engagement after 2020.

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ABBREVIATIONS

ADB – Asian Development Bank

BLO – Business Leadership Organization

C40 – C40 Cities Climate Leadership Group

cCR – Carbonn Climate Registry

CDIA – Cities Development Initiative for Asia

CO2 – Carbon Dioxide

COP21 – 21st Conference of the Parties, taking place from November 30 – December 11 in Paris, France

ESS – Environmental and social safeguards (standard under the Green Climate Fund)

GCF – Green Climate Fund

GFDRR – Global Facility for Disaster Reduction and Recovery

GHG – Greenhouse gases

ICLEI – formerly "International Council for Local Environmental Initiatives," today "ICLEI-Local Governments for Sustainability"

IDB – Inter-American Development Bank

INDC – Intended Nationally Determined Contributions

IPCC – Intergovernmental Panel on Climate Change

LAC – Latin and the Caribbean

LGMA – the Local Governments and Municipal Authorities constituency under the UNFCCC

LPAA – Lima-Paris Action Agenda, adopted at COP20 in Lima

NAP – National Adaptation Plan

NAZCA – Non-state Actor Zone for Climate Action

NDA – National Designated Authority

NGO – Non-Governmental Organization

UCLG – United Cities and Local Governments (network)

UN-Habitat – United Nations Human Settlements Programme

UNEP – United Nations Environment Programme

UNFCCC – the United Framework Convention on Climate Change

UNISDR – United Nations International Strategy for Disaster Reduction

Urban LEDS – Urbane Low Emission Development Strategy

WHO – World Health Organization

www.climate-diplomacy.org

www.ecc-platform.org
www.auswaertiges-amt.de
www.adelphi.de